BRICHKIN, A.V., professor, doktor; ZHAKUPOV, G.Ye., kandidat tekhnicheskikh nauk.; GENBACH, A.N., inzhener; CHULAKOV, P.Ch., inzhener; SINDEYEV, P.R., inzhener;

Manually operated thermoborer with a single nozzle burner. Mekh.trud. rab. 11 no.1:15-16 Ja '57. (MLRA 10:5)

1.Chlen-korrespondent Adademii nauk KazSSR (for Brichkin)
(Boring machinery)

SINDEYEV, P.R., Cand Tech Sci — (diss) "Regime of thermic [illegible] and constructive elements of a gas-jet." Alma-Ata, 1958, 14 pp with sketches (Min of Higher Education USSR. Kazakh Mining Metallurgical Inst. Chair of Mining of Ore Deposits) 150 copies (KL, 50-58, 125-6)

BRICHKIN, A.V.; SINDEYEV, P.R.; GENBACH, A.N.

Effect of the thermal gas flow on the face of a borehole during thermal piercing. Trudy Alt. GMNII AN Kazakh. SSR no.7:82-101 '58. (MIRA 12:7)

(Boring) (Thermodynamics)

BRICHKIN, A.V., prof.; SINDEYEV, P.A., inzh.

Distance between burner and borehole face and its influence on the rate of thermal piercing. Izv.vys.ucheb.zav.; gor.zhur. no.11:74-86 '58. (MIRA 12:8)

1. Kazanskiy gornometallurgicheskiy institut, chlen-korrespondent AN KazSSR (for Brichkin). 2. Altayskiy institut AN KazSSR (for Sindeyev).

(Boring)

SOV/31-59-2-6/17

14(5)

AUTHOR: Sindeyev, P.R.

TITLE: Conditions for Thermal Drilling and Constructional Elements of the Torch (Rezhim termicheskogo bureniya i konstruktivnyye elementy gorelki)

PERIODICAL: Vestnik Akademii nauk Kazakhskoy SSR, 1959, Nr 2, pp 50 - 63 (USSR)

ABSTRACT: This article examines the optimum conditions for successful thermal drilling which does not only depend on the working conditions of the torch (temperature, speed of gas current, pressure in the combustion chamber), but also on the conditions of the drilling process itself. Correct drilling implies keeping the torch at an adequate moving speed for given conditions and types of rocks, maintaining the distance between the torch and the borehole face and the diameter of the borehole, which depends on the above-mentioned distance and drilling speed. The author's thermal drilling experiments carried

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Conditions for Thermal Drilling and Constructional Elements of the Torch

out on rocks of the Kounradskiy rudnik (Kounradskiy Mine) have laid great stress on the distance of the torch end from the surface of the borehole face. It has been determined that a change of distance, under otherwise equal conditions, also change the drilling speed and the bore hole diameter. In other words, maintaining an optimum distance between face and torch is indispensable for intensive drilling. In the first section of the article, the author considers the functional dependence of the distance between torch and face. He concludes that bore hole diameter and distance between face and torch depend on the dynamic indices of the gas current and the design of the burner and nozzles. Experiments confirmed the theoretical considerations. A comparison between experimental and theoretical data showed only slight deviations. To establish the distance between face and torch and the bore hole diameter, therefore, the theoretical premises can be fully utilized. The author further deals with the influence of certain types of shock waves on rock demolition

Conditions for Thermal Drilling and Constructional Elements of the Torch

and with the form of the torch gas baffle. He summarizes his statements as follows: 1) Successful thermal drilling is only possible, if a supersonic high-temperature gas current capable of producing shock waves is applied; its angle of incidence at the bore hole face must be 90°, at least 75°. 2) The rotation angle of the peripheral nozzles shall not exceed 10- 15°. 3) The burner must be equipped with a gas baffle, which is suitable in form and ensures a maximum life span for the torch. 4) The distance between the end of the torch and the bore hole face is of great practical importance for the intensity of drilling. 5) Maintaining the distance within optimum limits requires the development of a special automatic control device at an industrial thermal drilling plant. There are 10 figures, 6 tables and 11 references, 10 of which are Soviet and 1 English.

Card 3/3

BRICHKIN, A.V.; SINDEYEV, F.R.; GENBACH, A.N.

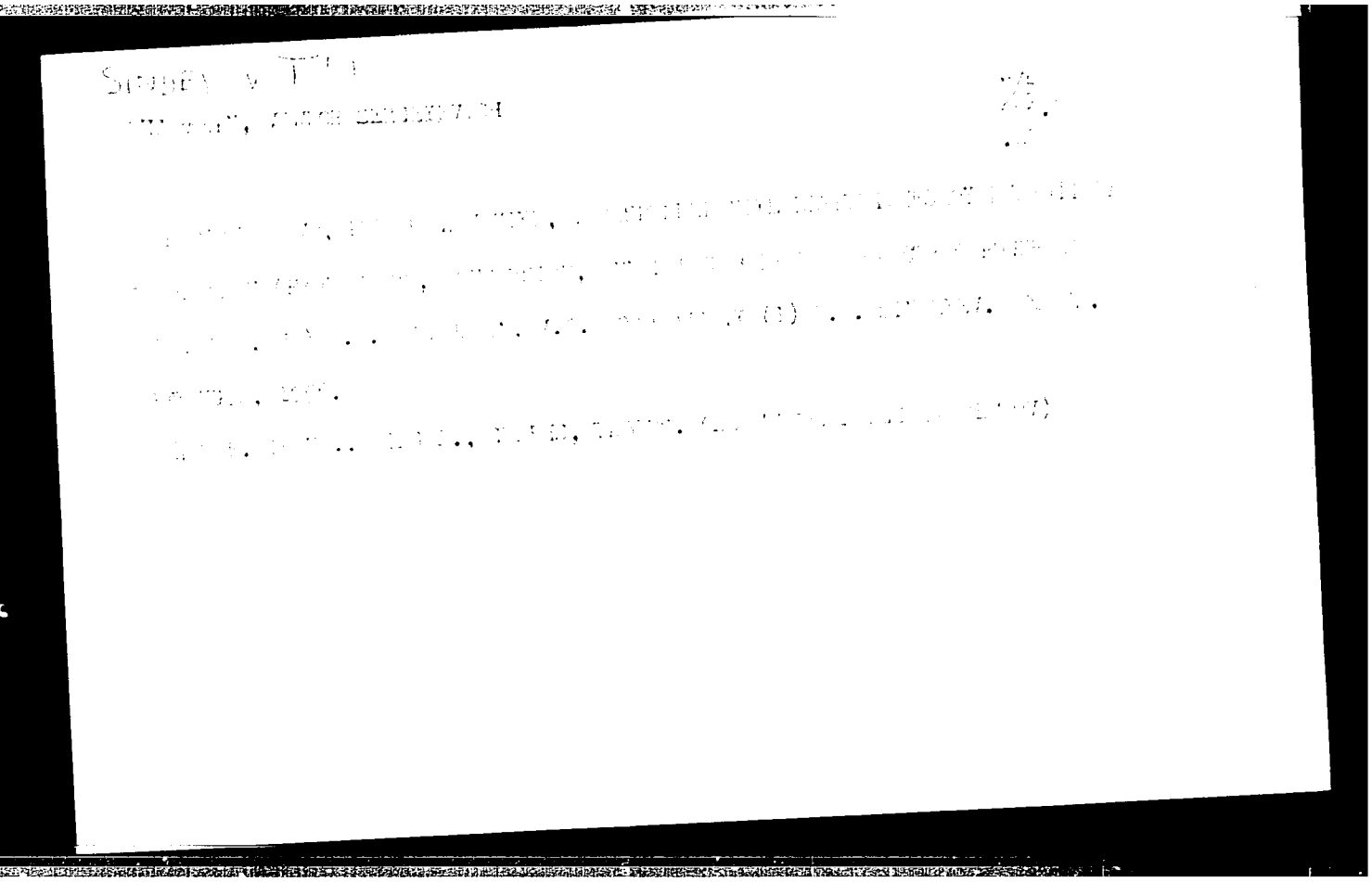
Form of the gas screen of a jet device for thermal boring. Trudy Alt. GMNII AN Kazakh. SSR 10:103-115 '61. (MIRA 14:9)
(Boring--Equipment and supplies)

SINDEYEV, P.R.; FEOFANOV, V.A.

Automating jet piercing. Trudy Alt. GMNII AN Kazakh. SSR 15:115-122 '63. (MIRA 17:3)

SINDEYEV, P.R.; SYUNDYUKOV, U.M.

Some characteristics of the designing of torches for manual jet piercing. Trudy Alt. GMNII AN Kazakh. SSR 15:123-137 '63. (MIRA 17:3)



LEVSHIN, Vladimir Arturovich; FILONENKO-BORODICH, M.M., doktor tekhn.nauk, prof., retsenzent; VOSTROKNUTOV, S.P., doktor tekhn.nauk, prof., retsenzent; SINDEYEV, V.A., prof., retsenzent; SOKOLOV, V.I., doktor tekhn.nauk, prof., retsenzent; MINAYEVA, T.M., red.; SHAPENKOVA, T.A., tekhn.red.

[Strength of materials] Soprotivlenie materialov. Moskva, Izd-vo nauchno-tekhn.lit-ry RSFSR, 1961. 475 p. (MIRA 14:6)

(Strength of materials)

GLUSHKOV, Georgiy Sergeyevich, doktor tekhn. nauk, prof.; BEZUKHOV, N.I., zasl. deyatel' nauki i tekhniki RSFSR, doktor tekhn. nauk, prof., retsenzent; SINDEYEV, V.A., prof., red.; KOZLOV, A.P., red. izd-va; UVAROVA, A.F., tekhn. red.; DEMKINA, N.F., tekhn. red.

[Engineering methods for strength and rigidity analysis; with the use of moments of high orders] Inzhenernye metody raschetov na prochnost' i zhestkost'; s primeneniem momentov vysokikh poriadkov. Izd.2., perer. i dop. Moskva, Mashgiz, 1962. 354 p. (MIRA 15:9)

(Strength of materials)

GLUSHKOV, G.S.; GINDEYEV, V.A. [deceased]; BEZUKHOV, N.I., doktor tekhn. nauk, prof., zasl. deyatel' nauki i tekhniki RSFSR, retsenzent; KOFYLENKO, V.P., prof., nauchn. red.; FUFAYEVA, G.I., red.

[Course in the strength of materials] Kurs soprotivleniia materialov. Moskva, Vysshaia shkola, 1965. 767 p. (MIRA 18:5)

SINDEYEVA, E.N.

Puerperal period in women with increased blood loss during labor. Sov. med. 25 no.4:48-52 Ap '62. (MIRA 15:6)

1. Iz kafedry akusherstva i ginekologii (zav. - prof. K.N. Zhmakin) I Moskovskogo ordena Lenina meditsinskogo instituta.
(LABOR, COMPLICATED)
(PUERPERIUM)

L [illegible]-67 EWT(m)/EWP(j)/EWP(t)/ETI IJP(c) JD/AT/RM
ACC NR: AT6023071 (A) SOURCE CODE: UR/0191/66/000/004/0063/0064

AUTHOR: Sindeyeva, L. G.; Ostrikov, M. S.; Droyzen, V. M.

ORG: none

TITLE: Anticorrosion properties of polyethelene coatings with mineral fillers

SOURCE: Plasticheskiye massy, no. 4, 1966, 63-64

TOPIC TAGS: polyethylene, plastic coating, corrosion inhibitor, filler, quartz, steel

ABSTRACT: The authors have investigated the effect of marshalite, quartz, feldspar, diabase, talcum, and mica fillers used to improve the strength characteristics and rigidity of polyethylene coatings in corrosive media under abrasive conditions. Coatings of P-4004-T polyethylene with 0.94 g/cm^3 density, 0.6 g/10 min. fusion index, 0.08% ash content, and 25 wt.% filler, 400-500μ thick, were sprayed on 60 mm long, 15 mm diameter cylindrical steel specimens. The specimens were tested in 10% NaCl, 2% H_2SO_4, and 4% NaOH solutions at 20, 40, 60, and 80C. The life of the coatings was determined by measuring the electrical resistance with the aid of a teraohmmeter MOM-4 (see Table). The corrosive treatment was repeated every week. For 7 hr. the specimens were held at 80C, the rest of the time at room temperature. The life of coatings decreased as the temperature was increased. (Figure 1). An increase in the life of

Card 1/3

UDC: 678.742.2-416+678.046.36.019.34

L 08912-67

ACC NR: AP6023071

Table 1. The effect of mineral fillers on the service life of polyethelene coatings

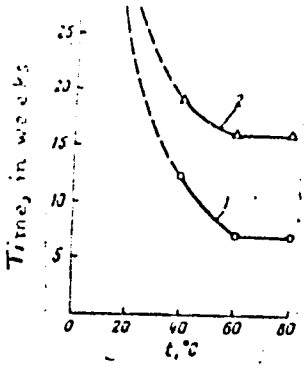
Medium, at 80C	Service life of coating, in weeks						
	Filler						
	no filler	marshalite	quartz	feldspar	diabase	talcum	mica
2% H_2SO_4: 1 day pH=3: 6 days	8	21	20	4	7	3	3
10% NaCl: 1 day pH=10: 6 days	7	21	20	8	21	12	3
4% NaOH: 1 day pH=3: 3 days pH=10: 3 days	6	9	9	7	8	5	9

coatings can be attributed to the stress-relieving effect of the fillers. Filler-reinforced coatings, however, undergo spot corrosion due to hydrophobic and hydrophilic differences in the polyethylene and the filler. Hence, studies are being conducted as to the effect of imparting hydrophobic properties to mineral fillers on the properties of polyethylene coatings. Orig. art. has: 3 fig. and 1 table.

Card 2/3

L 12-67

ACC NR: AT6023071



1 - polyethylene
2 - polyethylene + 25% quartz

Figure 1. Life-temperature dependence in 10%NaCl for 1 day, pH=10 for 6 days

SUB CODE: 11,13/ SUBM DATE: none/ ORIG REF: 002

Card 3/3

SINDEYEVA, N.D.

Geochemical indication of the presence of pyrite deposits. Dokl. AN SSSR 104 no.1:114 S '55. (MLRA 9:2)

1.Laboratoriya mineralogii i geokhimii redkikh elementov Akademii nauk SSSR.Predstavleno akademikom D.I.Shcherbakovym.
(Pyrites)

SINDEYEVA, N.D.

Materials on the geochemistry of selenium. Trudy Inst. min., geokhim. i kristallokhim. red. elem. no.1:7-13 '57. (MIRA 11:6)
(Selenium)

SINDEYEVA, Nina Dmitriyevna (Institute of Mineralogy, Geochemistry, and Crystal Chemistry of Rare Elements Acad. Sci. USSR) for Doc of Geological and Mineralogical Sciences on the basis of dissertation defended 10 Dec 58 in Council of the Institute of Geology of Ore Deposits, Petrography, Mineralogy, and Geochemistry Acad. Sci. USSR, entitled: "Mineralogy, Types of Deposits, Principal Outlines of the Geochemistry of Selenium and Tellurium." (BMVISSO USSR, 2-61, 31)

AUTHOR: Sindeyeva, N.D. 11-58-5-7/16

TITLE: Selenium and Tellurium in Deposits of Different Genetic Types (Selen i tellur v mestorozhdeniyakh razlichnykh geneticheskikh tipov)

PERIODICAL: Izvestiya Akademii Nauk SSSR, Seriya Geologicheskaya, 1958, Nr 5, pp 78-94 (USSR)

ABSTRACT: One of the main geochemical peculiarities of selenium and tellurium is their duality, which places these elements on the boundary line of normal and scattered elements. A large part of the atoms of selenium are scattered in the deposits of sulfur, because of the similarity of their chemical properties. Other parts of these atoms form independent minerals, especially atoms of tellurium, because of their dissimilarity to sulphur. Both these elements are extracted mainly from copper and pyritic deposits in quantities sufficient for industrial needs. The author describes and classifies genetic types of deposits containing these elements. Minerals which include selenium and tellurium were formed in all stages of ore-forming processes from the magmatic to the exogenous stages. On pages 80 - 81, the author presents a detailed table of the classification

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Selenium and Tellurium in Deposits of Different Genetic Types

of all known deposits of these elements in the world. She divides them in three main groups: Magmatic deposits; Volcanogenous deposits; Hydrothermal deposits and Exogenous deposits. The largest reserves of selenium are associated with the liquation type of magmatic deposits. The largest reserves of tellurium, together with selenium, are connected with the post-magmatic, mainly pyritic and cupri-molybdic, deposits. Many other post-magmatic deposits also include selenium and tellurium, and therefore can be used for the extraction of these elements. In the sulfide deposits, the chalcopyrites have the highest content of selenium, which is also found in pyrites and molybdenites. In lead and zinc deposits, the tellurium is found mainly in the galenites. The largest part of the deposits containing the two elements is connected with acid or semi-acid granitoids, but the largest deposits are usually connected with the basic intrusives.
There is 1 table and 11 references, 3 of which are Soviet, 4 American, 3 German and 1 Belgian.

11-58-5-7/16

Selenium and Tellurium in Deposits of Different Genetic Types

ASSOCIATION: Institut mineralogii, geokhimii i kristallografii redkikh elementov AN SSSR, Moscow (Institute of Mineralogy, Geochemistry and of Crystallography of Rare Elements, Moscow)

SUBMITTED: 2 January 1958

AVAILABLE: Library of Congress

Card 3/3 1. Ore-Deposits 2. Tellurium 3. Selenium

AUTHORS: Sindeyeva, N. D., Kurbanova, N. Z. SOV/20-120-2-36/63

TITLE: On the Clarks of Selenium in Some Rocks of the USSR (O klarke selena v nekotorykh gornykh porodakh SSSR)

PERIODICAL: Doklady Akademii nauk SSSR, 1958, Vol. 120, Nr 2, pp. 353 - 355 (USSR)

ABSTRACT: There are no works specially devoted to the distribution of selenium in the rocks of the earth's crust. The data of different authors for the selenium clark are given in table 1. They may be subdivided into 2 groups: 1) Quantities obtained by the analysis of concrete natural objects; 2) Quantities obtained by the comparison of actual data with data of earlier investigations, or by mere mathematical computations. In 1955-1957 the authors performed a work with the aim to determine the distribution of selenium in different types of rock in the USSR. The average values obtained in this connection (table 2) for the time being do not yet permit any statement that the clark-contents in rocks of different basicity are highly different from each other. At the same time a certain accumulation of selenium in certain regions, e.g. the region of Magadan, becomes evident. From the analyses of table 2 the conclusions may be drawn that selenium

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On the Clarks of Selenium in Some Rocks of the USSR SOV/20-120-2-36/63

is contained in acid, basic and alkaline rocks in larger amounts than was reported in earlier investigations (References 1,13). The authors' analyses yielded 1,5.10^{-5}%, on the average ~1,4.10^{-5}% . At the end data on the distribution of selenium in the world (References 9,11,12) are given. In the Pribaltika 3 schist samples showed contents of from 3.10^{-5} to 5.10^{-4}% (table 2). All these data are not yet sufficient for drawing conclusions on the selenium contents in sedimentary rocks of the USSR. There are 3 tables and 13 references, 6 of which are Soviet.

ASSOCIATION: Institut mineralogii, geokhimii i kristallokhimii redkikh elementov Akademii nauk SSSR (Institute for Mineralogy, Geochemistry and Crystal Chemistry of Rare Elements,AS USSR)

PRESENTED: March 3, 1958, by D. I. Shcherbakov, Member, Academy of Sciences, USSR

SUBMITTED: February 26, 1958

Card 2/2

1. Selenium—Determination 2. Rock—Preparation 3. Rock—Analysis

SINDEYEVA, Nina Dmitriyevna; BEUS, A.A., doktor geol.-mineral.nauk, otv.red.; SIMKIN, S.M., red.izd-va; KUZ'MIN, I.F., tekhn.red.

[Mineralogy, types of deposits, and basic geochemical characteristics of selenium and tellurium] Mineralogiia, tipy mestorozhdenii i osnovnye cherty geokhimii selena i tellura. Moskva, Izd-vo Akad.nauk SSSR, 1959. 254 p. (MIRA 13:2)
(Selenium) (Tellurium)

3(5,8),5(2,4)

AUTHORS: Sindeyeva, N. D., Godovikov, A. A. SOV/20-127-2-55/70

TITLE: On the Isomorphism Between Sulphur and Tellurium in Galenite

PERIODICAL: Doklady Akademii nauk SSSR, 1959, Vol 127, Nr 2, pp431-434 (USSR)

ABSTRACT: S, Se and Te are in the VIth group of the periodic system of elements and are chemical analogs. In nature they are connected by monotypical hypergenic processes and occur in the same deposits. They are arranged in an isomorphous series in geochemical papers (Refs 1,2,4). The isomorphism of S and Se is undoubted, that of S and Te, is, however, unclear. The possibility of an isomorphous substitution of the elements is known to be to a considerable extent caused by the size of the ionic-, atomic-, or covalent radii. The sulphides are to a considerable extent covalent compounds. Selenides and tellurides to a still greater extent. The authors wanted to examine experimentally the boundaries of the isomorphous substitutions between S and Te. For this purpose PbS (galenite) and PbTe (altaite) were chosen as compounds of one and the same structural type (NaCl) which have also the same type of

On the Isomorphism Between Sulphur and Tellurium in Galenite

chemical bond and further analogies. They were produced pyrosynthetically from elements (in stoichiometric quantities). Table 1 shows the lattice parameters and the microhardness in the series of these compounds. The tellurium quantity which penetrated into the galenite lattice was considerably shortened with the reduction of the altaite concentration to 5% (the parameters were much less changed). The parameters were not changed at an altaite content of 2 and 0.25%. This proves the limitedness of the S- and Te-isomorphism. Considerable excess concentrations of Te are necessary for its occurrence. A solid solution is produced here since the microhardness increases with rising content of PbTe in the sample. By a galenite synthesis in the presence of a considerable tellurium excess a mixture was produced consisting on the whole of galenite and tellurium (Fig 4); it had a characteristic structure. The galenite parameter was, however, not changed.

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On the Isomorphism Between Sulphur and Tellurium in Galenite

SOV/20-127-2-55/70

The formation of a small altaite quantity in the mixture which cannot be determined by the phase analysis may be caused by an inconsiderable sulphur loss in the opening of the soldered experimental ampule. It could not be proved that selenium plays the role of a mediator when tellurium penetrates into the galenite lattice. There are 4 figures, 3 tables, and 5 references, 4 of which are Soviet.

ASSOCIATION: Institut mineralogii, geokhimii i kristallokhimii redkikh elementov (Institute of Mineralogy, Geochemistry, and Crystal Chemistry of the Rare Elements)

PRESENTED: January 26, 1959, by N. V. Belov, Academician

SUBMITTED: November 14, 1958

Card 3/3

D'YACHKOVA, I.B.; SINDEYEVA, N.D., otv. red.; SHILLER, V.A., otv. za vypusk.

[Isomorphism of minerals in the system Bi_2S_3- Bi_2Se_3] Ob izomorfizme mineralov v sisteme Bi_2S_3 - Bi_2Se_3. Moskva, 1960. 10 p. (Akademiia nauk SSSR. Institut mineralogii, geokhimii i kristallokhimii redkikh elementov. Mineralogiia, no.5) (MIRA 15:6)
(Isomorphism)

SINDEYEVA, N. D.

"Some features of the geochemistry of selenium and tellurium"

Paper submitted at the International Geological Congress XXI Session - 1960 (Reports of Soviet Geologists) Problem No. 1, 15-24 Aug. 61

SINDEYEVA, N.D.; KULIKOVA, M.F.

Rare elements in the oxidation zone of sulfide deposits.
Trudy IMGRE no.10:268-290 '63. (MIRA 17:5)

[illegible]

[illegible], IMGR, [illegible].

[illegible] mineralogical and geochemical characteristics and ore-bearing potential of the tin deposits in Yakutia [illegible] geokhimicheskie metody i inzhenernaya [illegible] olovorudnykh mestorozhdeniy [illegible] Moskva, Izd-vo "Nauka," 1964. 250 p. (MIRA 17:7)

PUSHKO-ZAKHAROVA, Oksana Yevgen'yevna; [illegible], L.D., otv. red.;

[Geochemistry and mineralogy of selenium and tellurium in copper-nickel deposits] Geokhimiia i mineralogiia selena i tallura v medno-nikelevykh mestorozhdeniiakh. Moskva, Izd-vo "Nauka," 1964. 110 p. (MIRA 17:6)

YANOV, A.P.; SINDEYEVA, N.F.

Formation of poison gases and dust during blasting operations in underground workings. Sbor.nauch.trud.Kirv.fil.'GD AN URSR no.1:31-38 '62. (MIRA 16:4)
(Mine dusts) (Mine gases) (Blasting)

SINDIC, Miodrag; JANCIC, Marija S.

Phlegmonous gastritis. Srpski arh. celok. lek. 89 no.4:485-489 Ap '61.

1. Patolosko-anatomski institut Medicinskog fakulteta Univerziteta u Beogradu. Upravnik: prof. dr Zivojin Ignjacev. Interna klinika A Medicinskog fakulteta Univerziteta u Beogradu. Upravnik: prof. dr Branislav Stanojevic.

(GASTRITIS)

DURIC, Dusan S.; MICIC, Jovan V.; SINDIC, Miodrag; STEPANOVIC, Dragomir

A case of subacute bacterial endocarditis simulating acute bacterial endocarditis. Srpski arh. celok. lek. 89 no.5:623-628 My '61.

1. Interna klinika A Medicinskog fakulteta Univerziteta u Beogradu. Upravnik: prof. dr Branislav Stanojevic. Institut za patolosku anatomiju Med. fakulteta Univerziteta u Beogradu. Upravnik: prof. dr Zivojin Ignjacev.

(ENDOCARDITIS SUBACUTE BACTERIAL diag)

BOZINOVIC, Ljubica; SINDIC, Miodrag; MORIC-PETROVIC, Slavka

Tetralogy of Fallot with residual endovasculitis and endocarditis in a case of mongolism. Srpski arh. celok. lek. 91 no.5:511-516 My '63.

1. Interna klinika B Medicinskog fakulteta Univerziteta u Beogradu Upravnik: prof. dr Radivoje Berovic Patolosko-anatomski institut Medicinskog fakulteta Univerziteta u Beogradu Upravnik: prof. dr Zivojin Ignjacev Neuropsihijatrijska klinika Medicinskog fakulteta Univerziteta u Beogradu Upravnik: prof. dr Uros Jekic.
(MONGOLISM) (TETRALOGY OF FALLOT)
(ENDOCARDITIS) (PULMONARY EMBOLISM)
(GANGRENE)

SINDIC, Miodrag; BABIC, Dusan

Isolated metastases of breast cancer to the thyroid gland. Srpski arh. celok. lek. 89 no.11:1353-1356 N '61.

1. Interna klinika A Medicinskog fakulteta Univerziteta u Beogradu Upravnik: prof. dr Branislav Stanojevic Patolosko-anatomski institut Medicinskog fakulteta Univerziteta u Beogradu Upravnik: prof. dr Zivojin Ignjacev.

(BREAST NEOPLASMS compl) (ADRENAL GLAND neopl)

S

SINDIJA, Ivan, ing. (Zagreb)

Theoretical fundamentals and the application of turbo-drills in the U.S.S.R. Nafta Jug 12 no.10:268-279 O '61.

1. Poslovno udruzenje "Nafta", Zagreb.

SINDIJA, Ivan, inz.

Theoretical foundations and application of turbodrills in the U.S.S.R. Application of turbodrill in the Tuymazy region, Bashkir Autonomous S. S. R. Nafta Jug 12 no.11/12:310-320 N-D '61.

1. Poslovno udruzenje "Nafta," Zagreb.

SINDIK, A.

Prevention and control of diphtheria. Higijena, Beogr. 9 no.1:81-85 1957.

1. Central Institute of Hygiene, Zagreb.
(DIPHTHERIA, prev. & control
(Ser))

MUMINAGIC, Abdulah, inz.; SINDIK, Anton, inz.

Meeting of the Permanent Committee of the International Federation of Geometers, and Symposium on Geodesy in Engineering, Sofia, August 22-29, 1964. Geod list 18 no.10/12:285-295 O-D '64.

SINDIK, I

SINDIK, I.

Yugoslavia (430)

General - Serials

The legislation of Stefan Dusam in Grbalj and Pastrovici. p.349. Srpska akademija nauka. GLASNIK. Beograd. (Quarterly bulletin containing abstracts of transactions and proceedings of the Serbian Academy of Sciences). Vol. 1, no. 3, 1949.

East European Accessions List, Library of Congress, Vol 1, no 13, November 1952. UNCLASSIFIED

SINDIJA, Ivan, inz.

Boring oil gas wells with electric boring machines in the U.S.S.R. Nafta Jug 13 no.4/5:92-99 Ap-My '62.

1. Poslovno udruzenje "Nafta", Zagreb.

[redacted], Nikola, dr.

Some observations on the role of climatic factors in asthma patients. Reumatizam 12 no.1:14-18 '65

1. Bolnica za alergijske bolesti organa za disanje, Dubrovnik.

AVRUKH, M.L., red.; VASIL'YEV, A.N., red.; SAYENKO, G.I., red.; SINDILEVICH, L.M., red.

[Reading machines; papers presented at the conference on the processing of information, machine translation, and automatic reading] Chitaiushchie ustroistva; sbornik dokladov na Konferentsii po obrabotke informatsii, mashinnomu perevodu i avtomaticheskomu chteniiu teksta. Moskva, 1962. 186 p. (MIRA 15:6)

1. Akademiya nauk SSSR. Institut nauchnoy informatsii.
(Reading machines)

L 33645-65 EWT(d)/EEC(k)-2/EED-2/EWP(1) Po-4/Pq-4/Pg-4/Pk-4 IJP(c)
BB/GG

ACCESSION NR: AP5007475 S/0286/65/000/004/0087/0097

AUTHORS: Bekin, B. S.; Gryaznov, N. I.; Vissonova, I. A.; Kuznetsov, V. I.; Sindilevich, L. M.; Shchegolev, L. P.

40
B

TITLE: Semiconstant capacity memory device. Class 42, No. 168535

SOURCE: Byulleten' izobreteniy i tovarnykh znakov, no. 4, 1965, 87

TOPIC TAGS: punched card, storage device

ABSTRACT: This Author Certificate presents a semiconstant capacity memory device of punched cards. To increase the reliability of the device with utilization of standard punched cards, the device consists of a plate with tanks in the form of grooves filled with conducting liquid or solid-liquid alloy (see Fig. 1 on the Enclosure). Pins coated with electrically insulating varnish pass through holes in the punched cards carrying information and are immersed in the conducting liquid. Orig. art. has: 1 diagram.

ASSOCIATION: none

SUBMITTED: 26Nov63 ENCL: 01 SUB CODE: DP

NO REF SOV: 000 OTHER: 000

Card 1/2

SINDILEVICH, L.M.

Second All-Union Conference on Automatic Processing of Information. NTI no.8:8-9 '63. (MIRA 16:10)

1. Uchenyy sekretar' Otdela mekhanizatsii i avtomatizatsii informatsionnykh rabot Vsesoyuznogo instituta nauchnoy i tekhnicheskoy informatsii Gosudarstvennogo komiteta Soveta Ministrov SSSR po koordinatsii nauchno-issledovatel'skikh rabot i AN SSSR.

BIRMAN, N.Ya.; SINDILEVICH, L.M.

Determining weight coefficients in the correlation method of written character recognition. NTI no.1:23-24 '64. (MIRA 17:3)

KISELEV, A.K.; SINDIN, I.K.

Lower Devonian deposits in the southwestern part of the Kalba Range. Dokl. AN SSSR 141 no.6:1435-1437 D '61. (MIRA 14:12)

1. Yuzhno-Kazakhstanskoye geologicheskoye upravleniye. Predstavleno akademikom D.V.Nalivkinym.
(Kalba Range--Geology, Stratigraphic)

137-58-4-7006

Translation from: Referativnyy zhurnal, Metallurgiya, 1958 Nr 4 p 100 (USSR)

AUTHOR: Sindin, V.G.

TITLE: Experiences in the Operation of the Section Mills of the Magnitogorsk Metallurgical Kombinat (Opyt raboty sortovykh stanov Magnitogorskogo metallurgicheskogo kombinata)

PERIODICAL: Tr. Nauchno-tekhn. o-va chernoy metallurgii 1956, Vol 10 pp 403-409

ABSTRACT: A steady increase in the production of sections is assured on the existing equipment by more complete utilization of the resources present for increasing output. Thanks to measures taken to re-equip the mills (replacement of motors, reconstruction of the tables), the rolling speed was increased to 9 m/sec. A major role is played by a strictly calculated reduction procedure assuring proper gripping of the metal by the rolls in each pass. An increase in the range of cross sections of the billets also provides a considerable reserve for increasing output. Bloomings have to be of great power in order to do this. Introduction of more modern fittings and a unified rolling procedure has reduced down-time at the mills. Re-equipment of leveling and shearing devices has

Card 1/2

Experiences in the Operation of the Section Mills (cont.)

also raised output. In connection with the increase in the output of rolling mills, a number of measures have been taken to speed the heating of billets in holding furnaces--a fuel of higher heat value is used and heat losses have been reduced. Down-time has been diminished by increasing the warehousing of finished products, by perfecting the method of roll replacement, and by introducing a number of measures to improve methods of repair and servicing. Supplement to RzhMet, 1957, Nr 7, 22805.

V. O.

1. Rolling mills--Operation 2 Rolling mills--Production

Card 2/2

SINDINA. L. YU.

28002. SINDINA. L. YU. -- Lecheniye ognestrel'nykh osteomielitov po dannym frunzenskogo respublikanskogo gospitalya invalidov otechestvennoy voyny. Trudy pervoy nauch. Mezhresp. Konf-tsii po lecheniyu invalidov otechestv. voyny v sred. Azii. Tashkent, 1949, S. 125-28.

SO: Letopis' Zhurnal'nykh Statey. Vol. 37, 1949.

SIDOROVA, N.G.

Artificial [illegible] in schools in Alma-Ata. Zdrav. Kazakh. 21 no.10:6-7 '60. (MIRA 17:6)

1. Iz kafedry shkolnoy gigiyeny (zav.-prof. I.S. Koryakin) Kazakhskogo meditsinskogo instituta.

SINDINA, N.G.

Hygienic evaluation of the schedule for schoolchildren in Alma-Ata.
Zdrav. Kazakh. 23 no.4:67-70 '63. (MIRA 17:5)

1. Iz kafedry obshchey gigiyeny (zaveduyushchiy - prof. I.S. Koryakin) Alma-atinskogo meditsinskogo instituta.

SINDINA, N.G.

Hygienic characteristics of consolidated preschool children's institutions in Alma-Ata. Zdrav. Kazakh. 21 no.1:76-77 '61. (MIRA 14:3)

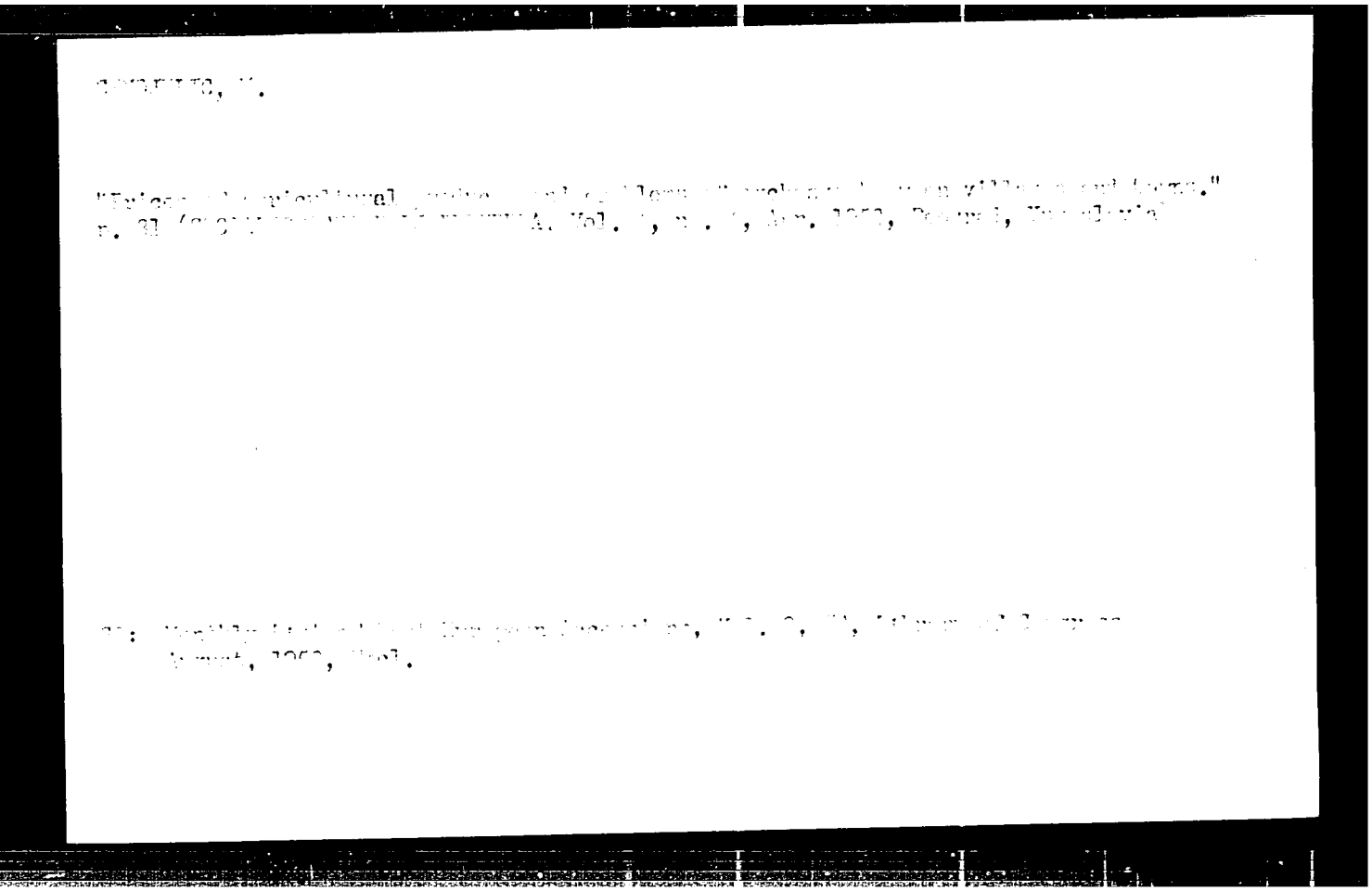
1. Iz kafedry obshchey gigiyeny (zav. - professor I.S.Koryakin) Kazakhskogo meditsinskogo instituta.

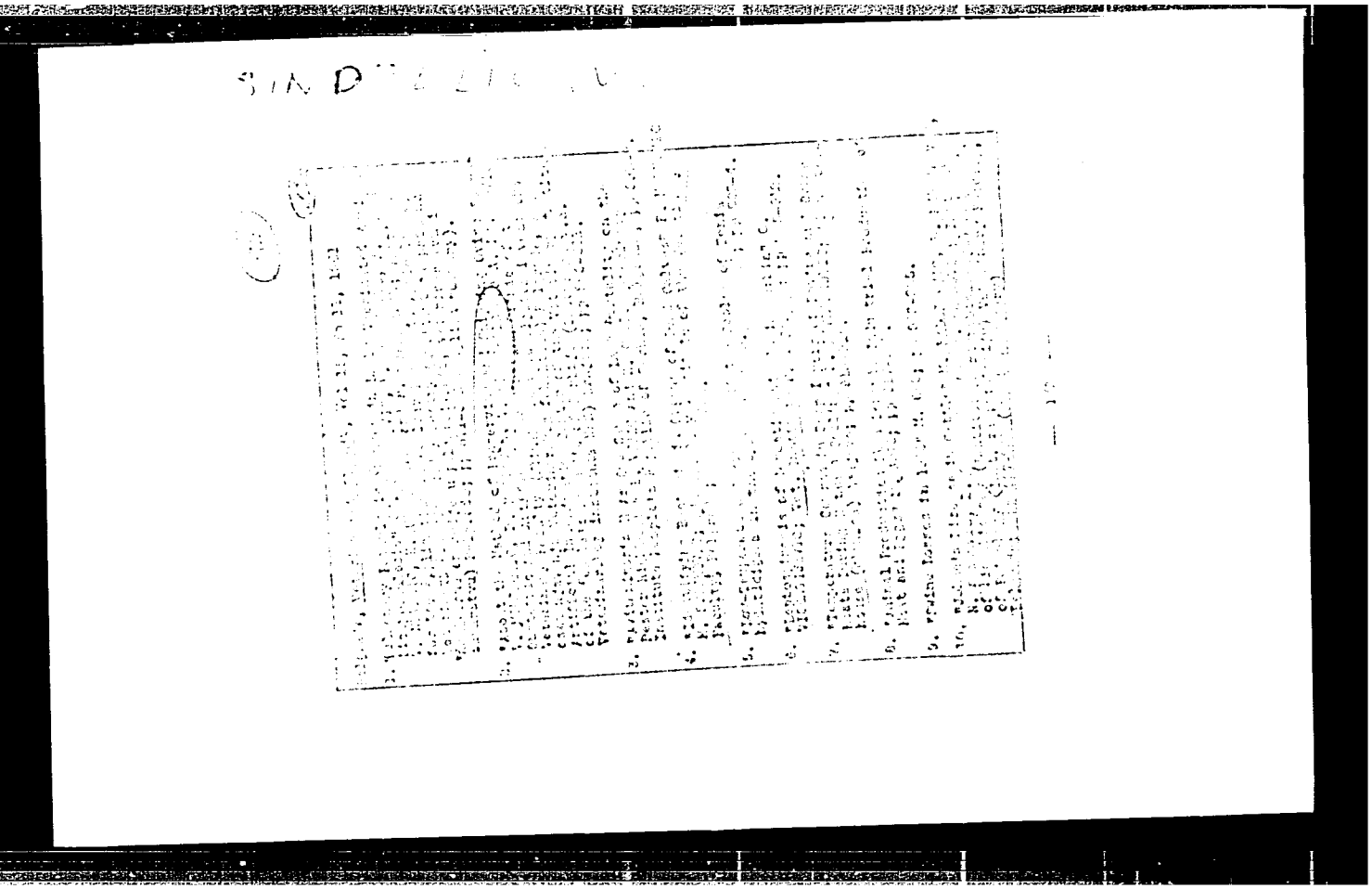
(ALMA ATA—NURSERIES—SANITARY AFFAIRS)

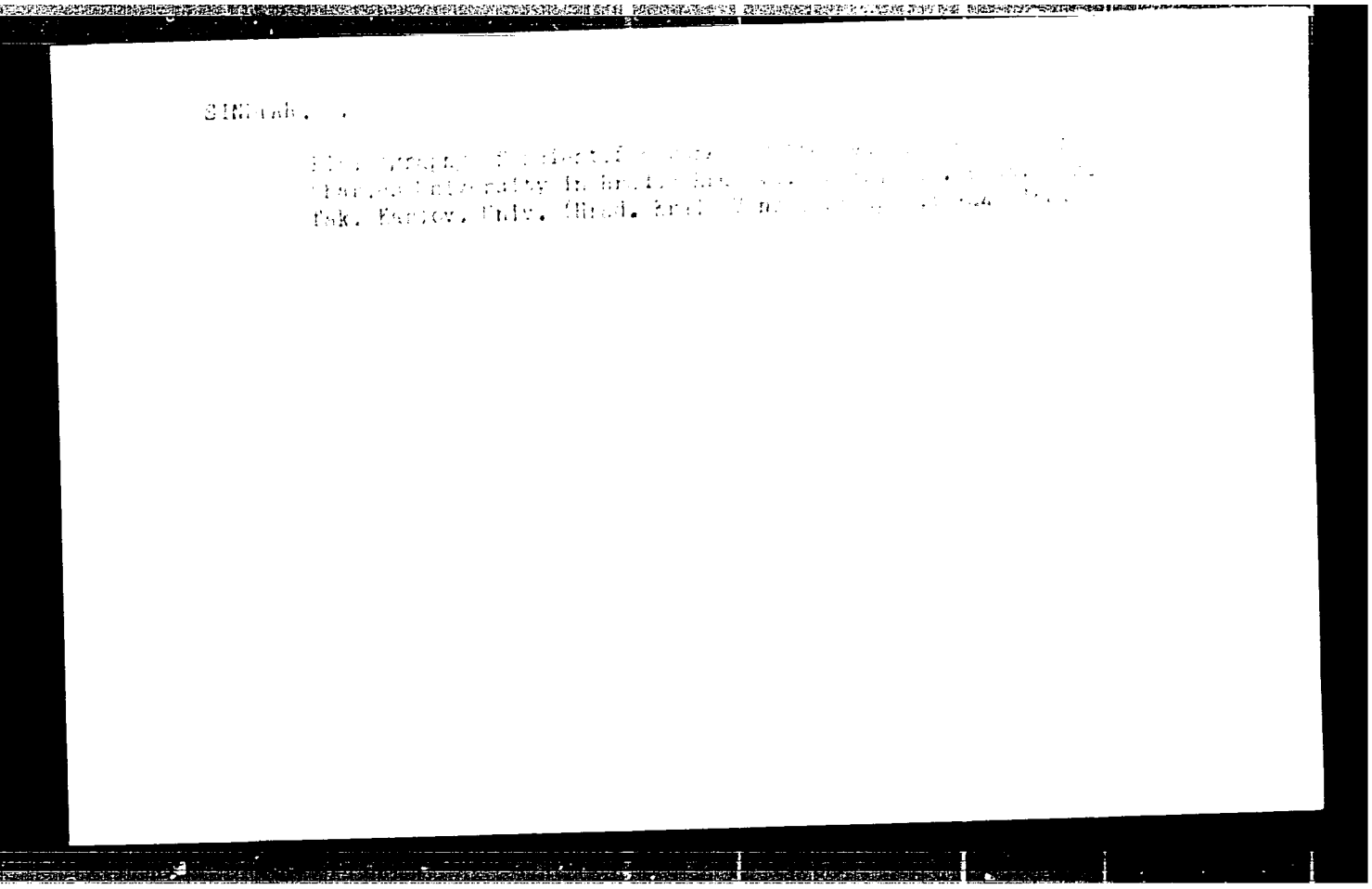
SINDINA, N.G.

Condition of the natural illumination of school buildings in Alma-Ata.
Zdrav. Kazakh. 21 no.10:59-61 '61. (MIRA 15:2)

1. Iz kafedry obshchey gigiyeny (zav. - prof. I.S.Konyakin)
Kazakhskogo meditsinskogo instituta.
(ALMA-ATA--SCHOOL HYGIENE)







SINDLAR, J.

Bibliography of scientific works of the Faculty of Medicine, Charles University at Hradec Kralove, 1960. Sborn.ved.prac.lek. fak.Karlov.univ. (Hrad.Kral) 6 no.1:Suppl.:1-47 '63.

*

SINDLAR, S., inz.

Approximate determination of stress conditions in toroidal shells.
Strojirenstvi 12 no.9:643-650 S '62.

1. Statni vyzkumny ustav tepelne techniky, Praha.

SINDLAR, S., inz. CSc.

Approximate solution of the stress in transitional parts of pressure vessels. Strojirenstvi 14 no. 3: 169-176 Mr '64.

1. State Research Institute of Heat Technology, Prague.

BR

ACCESSION NR: AP4010168 Z/0041/64/000/001/0003/0019

AUTHOR: Sindlar, Svatopluk (Engineer)

TITLE: A torus-shaped shell with a negative Gaussian curvature

SOURCE: Strojnicky casopis, no. 1, 1964, 3-19

TOPIC TAGS: shell, shell theory, shell analysis, torus-shaped shell, negative Gaussian curvature shell

ABSTRACT: A solution to the differential equation, which is obtained by solving the state of stress in a torus-shaped shell having a negative Gaussian curvature, is given. The equation has the final form

$$\eta_1(\alpha) = c_0\varphi_1(\alpha) + d_0\varphi_2(\alpha). \qquad (1)$$

where

$$\varphi_1(\alpha) = (\lambda - \cos\alpha)\frac{1}{c_0}\sum_{n=0}^{n=N} c_n(1-\cos\alpha)^n,$$

$$\varphi_2(\alpha) = (\lambda - \cos\alpha)\sqrt{1-\cos\alpha}\,\frac{1}{d_0}\sum_{n=0}^{n=N} d_n(1-\cos\alpha)^n.$$

Card 1/3

ACCESSION NR: AP4010168

The Kuratov method (P.S. Kuratov. "Napryozhennoye sostoyanie toroidal'nogo sopryazheniya" (Stressed state of torroidal coupling), Prochnost' elementov par. turbin (Strength of steam turbine elements), Mashgiz, Moscow, 1951) for a torus-shaped segment with a positive Gaussian curvature was applied. Solution is valid only for the third quadraut. Solutions for the second quadraut are obtained from the expressions

$$\eta_1(\alpha) = (\lambda - \cos\alpha)\left\{\sum_n c_n \nu_1^n + \sqrt{\nu_1}\sum_n d_n \nu_1^n + \right.$$

$$\left. + \frac{\sqrt{2\nu_1 C}}{c_0 d_0 (\lambda - 1)^3}\left[\sum_n c_n \nu_1^n \cdot \sum_n \frac{d_n}{n+1,5}\nu_1^{n+1} - \sum_n d_n \nu_1^n \cdot \sum_n \frac{c_n}{n+1}\nu_1^{n+1}\right]\right\}, \quad (2)$$

where

$$\nu_1 = 1 - \cos\alpha \quad \text{and} \quad C = -\frac{\lambda}{2}\left[1 + \left(\lambda^2 - \frac{r_0^2}{a^2}\right)(1 + 2\eta^2)\right].$$

and

$$\left. - \sum_n \frac{c_n}{n+1}\nu_1^{n+1}\left(\sum_n n d_n \nu_1^n + \frac{1}{2}\sum_n d_n \nu_1^n\right)\right]\right\}. \quad (3)$$

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ACCESSION NR: AP4010168

in which the angle α is substituted by the angle $-\alpha$. Then

$$\eta_1(-\alpha) = \eta_1(\alpha) \text{ and } \eta_1'(-\alpha) = -\eta_1'(\alpha)$$

The infinite power series in equations (2) and (3) converge very rapidly for small angles of α. This convergence is the faster when the parameter (small Lambda) is the larger and the ratio a/δ (small Delta) the smaller. Orig. art. has: 2 figures and 87 equations.

ASSOCIATION: Statni vyzkumny ustav tepelne techniky, Prague (State Research Institute for Heat Engineering)

SUBMITTED: 05Jun62 DATE ACQ: 10Feb64 ENCL: 00
SUB CODE: AS NO REF SOV: 005 OTHER: 015

Card 3/3

KLEPAL, Vaclav; SINDLER, Erich

Automatic production of gearings. Stroj vyr 11 no.5:233-236 My '63.

1. Tovarny na obrabeci stroje Celakovice, n.p., Celakovice.

17

S SINDLER F

Production of Sintered Carbides. V. Šindler. (*Hutník*, (Prague), 1951, 1, No. 6, 130–131). [In Czech]. The composition of sintered carbides, details of the reduction processes applied to cobalt, tungsten, and titanium oxides as well as carburising conditions are given. Melting points and densities of carbides are tabulated, and the latter are given as a function of sintering temperature, pressure, and location within the specimen.—P. F.

SINDLER, F.

"Industrial production of pure hydrogen and nitrogen." p. 190. (Chemie. Vol. 7, no. 10, Oct. 1951. Praha.)

SO: Monthly List of East European Accessions, Vol. 3, no. 6, Library of Congress, June 1954. Uncl.

[illegible], [illegible] Czechoslovakia [illegible]

"Sulfur determination in noble metals."

Chemie (Prague) 8, 178-9 (1952).

SINDLER, G.

Studies on the structure and level of the teaching of physics by the visual method. Glas mat fiz Hrv 17 no.1/2:135-136 '62 [publ. '63].

Sindler, Yu. B.

621.396.65 : 621.376.9 : 621.396.812.3 1586
Accumulation of Noise in F.M. Radio-Relay Systems Produced by Fading of the Signal.—Yu. B. Sindler. (*Radiotekhnika i Elektronika*, May 1956, Vol. 1, No. 5, pp. 627–637.) Analysis is presented of noise in a multisection system, taking into account the effect of amplitude limiting in the receivers.

Sindler, Yu. B.

108-11-3/10

AUTHORS: Sindler, Yu. B., Nemirovskiy, A. S.

TITLE: On the Fading-Correlation in Adjoining Sections of the Radio-Relay-Lines (O korrelyatsii zamiraniy na sosednikh uchastkakh radioreleynykh liniy svyazi).

PERIODICAL: Radiotekhnika, 1957, Vol. 12, Nr 11, pp. 21-28 (USSR)

ABSTRACT: In this place those factors are analysed which influence the probability of a deficiency of the radio-relay-lines effected by the fading. The intensity of the background noise at the line output is looked upon as chance quantity and for it the rule of the probability-distribution is assessed. In the first place the case where the threshold of the distinctness of speech is surpassed, is examined. This threshold complies with the case where the signal strength surpasses the intensity of the background noise by approximately 10 db. Two cases of deficiency of a line can be distinguished:

a - breakdown of at least one section,

b- all section are intact, but the backgrouni noise caught

Card 1/3

On the Fading-Correlation in Adjoining Sections of the Radio-Relay-Lines.

by the line surpasses the threshold of the distinctness of speech. It is demonstrated that, as a rule, in too long lines at the fading the background noise produced by one section surpasses substantially that noise assembled in other tracts. This means that, the stronger the frequency-modulation-improvement-threshold is pronounced, for as much longer lines this thesis can be applied. It is shown that in this case the static analysis of the line breakdown results from the static analysis of breakdowns of line sections. If the sections are more or less identical, the diagram of a simple circuit by Markov can be used. As in practice the circuit is heterogenous, it is useful to carry out the outfit for some section-pairs. Such an outfit was carried out for the radio-relay-line Moscow - Gor'kiy in 1954 and 1955. In this place the results of these investigations are reported. It is shown that the use of the diagram of the simple circuit by Markov gives the first result of a rough approach under consideration of the fading correlation in the adjoining sections. The real error, nevertheless, which occurs at the use of the simple circuit is less than the error which results from the computation. There are 3

On the Fading-Correlation in Adjoining Sections of the Radio-Relay-Lines. 108-11-3/10

figures, 2 tables, and 5 references, 5 of which are Slavic.

SUBMITTED: April 22, 1957.

AVAILABLE: Library of Congress

Card 3/3

SINDLER, Yu. B

20-6-17/42

AUTHORS: Siforov, V. I., Corresponding Member AN USSR, Sindler, Yu. B.,

TITLE: Conditions of Equivalence of the Statistic Properties of Radioengineering Systems With a Great Number of Random Parameters (Ob usloviyakh ekvivalentnosti statisticheskikh svoystv radiotekhnicheskikh sistem s bol'shim chislom sluchaynykh parametrov)

PERIODICAL: Doklady AN SSSR, 1957, Vol. 116, Nr 6, pp. 956-958 (USSR)

ABSTRACT: From the analysis of the mode of operation of some radio-engineering systems (reference 1, 2, 3) results the problem of comparison of the distribution law of probabilities of the sum of the accidentally indipendent values $x_1, x_2, \ldots, x_n$ with the distribution law of the maximum (in the sense of a random realization) value. Such a problem arises e. g. with the radio-relay-lines with the analysis of the influence of limiters on the law of distribution of the noisepower in the telephone canal. Also with the radiolocation such a problem arises (reference 3). The solution of such problems facilitates the correct construction of radioengineering systems. If the distribution laws of the values $x_1, x_2, \ldots, x_n$ are similar to each other, then the distribution law of the sum of the random sizes in the range of their greatest values at the satisfaction of some additional conditions is practically equal to the

Card 1/2

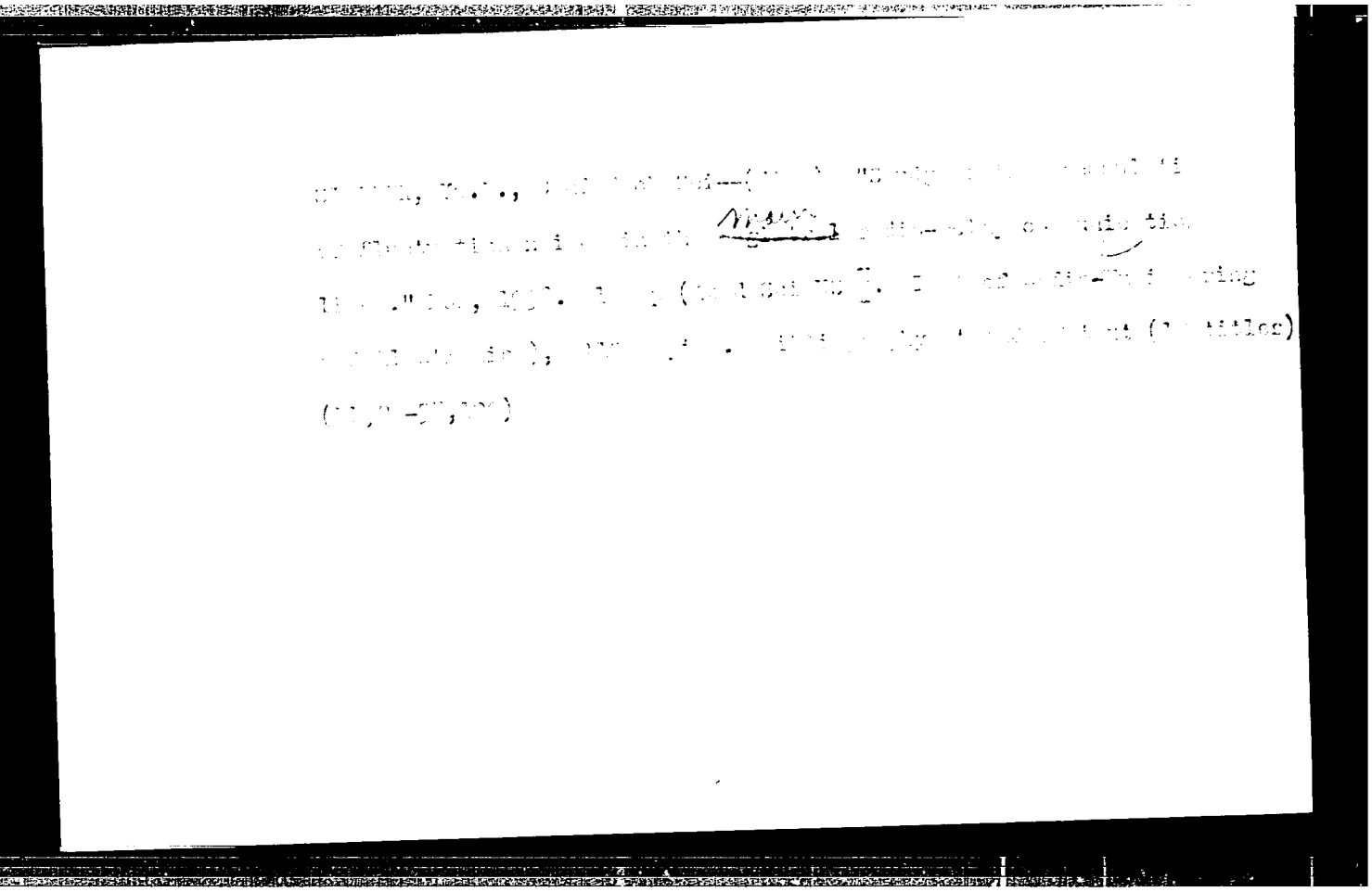
Conditions of Equivalence of the Statistic Properties of Radioengineering Systems With a Great Number of Random Parameters.

distribution law of the greatest of these values. Radioengineering systems the main indices of which are determined by the maximum value and their sum, are equivalent. Moreover, the similarity of these distribution laws can be applied for practical evaluations of the distribution law of the sum, because the distribution law of the maximum value can be determined elementarily. A corresponding theorem is given and proved. There are 4 references, 3 of which are Slavic.

ASSOCIATION: Institute of Radioengineering and Electronics AN USSR (Institut radiotekhniki i elektroniki Akademii nauk SSSR)

SUBMITTED: June 21, 1957

AVAILABLE: Library of Congress



SINDLER, Yu.B.

Using electronic digital computers for the solution of problems in ultrashortwave radio-relay communications by statistical sampling methods. Nauch.dokl.vys.shkoly; radiotekh. i elektron. no.1:81-85 '58. (MIRA 12:1)

1. Institut radiotekhniki i elektroniki AN SSSR.
(Radio relay systems--Noise) (Electronic digital computers)

22594
S/044/60/000/010/019/021
C111/C333

6.9400

AUTHOR: Sindler, Yu.B.

TITLE: Approximate calculation and modelling of the noise accumulation in radio communication lines with relay

PERIODICAL: Referativnyy zhurnal, Matematika, no. 10, 1960, 142, abstract 11952. (Sb.tr.Nauchno-tekhn. o-vo radiotekhn. i elektrosvyazi im. A.S.Popova, 1958, vyp. 2, 227-255)

X

TEXT: For sufficiently large values of the argument x the author gives estimations of the distribution laws $F_n(x)$ of the sums of a large number n of independent random variables as well as of random variables which form a simple homogeneous Markov chain. E.g., if the summands are independent, equally distributed, and if their distribution is attracted by a stable distribution with parameter α, then it holds for large x-values:

$$F_n(x) \approx \begin{cases} 1-(nc/x^{\alpha}) & \text{for } \alpha < 1 \\ 1-(nc/(x-cn \ln n)) & \text{for } \alpha = 1 \\ 1-(nc/[x-(n-n^{1/\alpha})a]^{\alpha}) & \text{for } 1 < \alpha < 2 \\ 1-(nc/[x-(n-1)a]^{\alpha}) & \text{for } \alpha > 2 \end{cases}$$

Card 1/2

Approximate calculation and...

22594
S/044/60/000/010/019/021
C111/C333

(a is the mathematical expectation of the single summands, c--parameter). The results are applied in order to estimate the distribution law of the noise intensity in a telephone channel in the output of a radio communication line with relay. The author proposes a method for the modelling of the considered problem on digital computers.

[Abstracter's note: Complete translation.]

Card 2/2

109-3-2-22/26

AUTHOR: Sindler, Yu.B.

TITLE: The Problem of Noise Storage in Radio Relay Links (K voprosu o nakoplenii shuma v radioreleynykh liniyakh svyazi)

PERIODICAL: Radiotekhnika i Elektronika, 1958, Vol.III, No.2, pp. 291 - 292 (USSR).

ABSTRACT: A formula for the noise distribution function $F_n(z)$ in a telephone channel situated at the n-th section of a radio-relay link is given. The symbols in the formula are as follows: a_k is the average noise power, $a'_k = a_k$ provided $\alpha_k \geqslant 2$, $a'_k = (1 - n^{1/\alpha}/n)a_k$ if $1 < \alpha_k < 2$, $a'_k = 0$ when $\alpha_k < 1$.

There is 1 Russian reference.

SUBMITTED: November 4, 1957

AVAILABLE: Library of Congress

Card 1/1 1. Noise-Distribution-Analysis

16 7000 (1403)

32471
S/044/61/000/010/037/051
C111/C222

AUTHORS: Fleyshman, B.S., Linkovskiy, G.B., and Sindler, Yu.B.

TITLE: On the question of the optimal statical estimation of the characteristics of a communication channel with a multi-ray propagation

PERIODICAL: Referativnyy zhurnal. Matematika, no. 10, 1961, 29, abstract 10 V 178. ("Sb. tr. Nauchno-tekhn. o-vo radiotekhn. i elektrosvyazi im. A.S. Popova", 1959, vyp 3, 34-42)

TEXT: The authors consider the same situation as in the preceding paper of the authors (abstract 10 V 176) ; the notations of this abstract are used but another problem is given. The actual value of λ is assumed to be known. An estimation for the dispersion of the "multiplicative" component of the noise $\alpha_i(t)$ is sought. Under the same assumptions as in the mentioned paper the authors use the method of the maximal credibility and the momentum method for the determination of the estimation of dispersion. The case where not all processes $\alpha_i(t)$ are equally

Card 1/2

distributed and there exists a process $\alpha_1(t)$ the dispersion of which is greater than for all other $\alpha_i(t)$ is considered separatedly. Some examples are considered. The remarks on the unclearness of the formulations made in abstract 10 V 176 (as well as the remark of the reviewer with respect to this abstract) hold also for the present paper.

[Abstracter's note : Complete translation.]

Card 2/2

S/058/61/000/006/051/063
A001/A101

9.1400

AUTHOR: Sinitsyn, V. B.

TITLE: An investigation of properties of probability distribution laws for fading and noises in radio retransmission lines

PERIODICAL: Referativnyy zhurnal. Fizika, no. 6, 1961, 359, abstract 6Zh289 ("St. tr. Nauchno-tekhn. obva radiotekhn. i elektrosvyazi im. A. S. Popova", 1959, no. 3, 117 - 139)

TEXT: On the basis of the theory of stable laws of probability distribution, the author establishes asymptotic properties of probability distribution laws for noises in telephone channels of radio retransmission lines; he made use of various literature sources and generalized them.

[Abstracter's note: Complete translation]

/B

Card 1/1

34040
S/109/62/007/001/019/027
D246/D301

6.9400

AUTHOR: Sindler, Yu.B.

TITLE: Applying the theory of dynamical programming to the problem of recording the level of weak signals with the aid of inertial dynamical systems in the presence of noise

PERIODICAL: Radiotekhnika i elektronika, v. 7, no. 1, 1962, 161 - 164

TEXT: The purpose of the paper is to find the optimum parameters for building a converter which is based on discrete action; but it can be extended for continuous operation. The original weak signal u(t) is made to pass through a noisy amplifier, where it becomes K u(t) + n(t) (n(t) representing noise). In the recording device a signal y(t) (which is not coincident with u(t)) is periodically recorded. A converter has to be inserted between amplifier and register so that to work out a signal $\lambda(t)$ which ensures that the next moment y(t) coincides better with K u(t) = S(t). The author tries

Card 1/3

Applying the theory of dynamical ...

to find the optimum functional $\lambda(t) = \lambda[s(\tau) + n(\tau)]$ where $t > \tau > -\infty$. The problem can be quantized, by dividing the time interval into N parts. Then the author assumes that S(t) is a normal Markov process. The output signal at the moment of recording can be represented by

$$y_o = \sum_{i=0}^{\infty} \lambda_i \Phi_i . \qquad (2)$$

This is a problem of a multistage choice. Using the ideas of dynamical programming, the author derives recurrent functional equations. The analysis shows that for small noise the rule for choosing the signal λ at the time $t = -i \cdot \Delta T$ is

$$\lambda_{opt}(\tilde{s}_{oi} \to y_{oi}) = \begin{cases} \lambda_i^*, & \text{if } |\lambda_i^*| < \lambda_M, \\ -\lambda_M, & \text{if } \lambda_i^* < -\lambda_M, \\ \lambda_M, & \text{if } \lambda_i^* > \lambda_M. \end{cases} \qquad (15)$$

Card 2/3

Applying the theory of dynamical ...

where $\lambda_i^* = \frac{1}{\Phi_i}(\bar{s}_{oi} - y_{oi})$, λ_M is a constant, such that $|\lambda(t)| \leq \lambda_M$; $\bar{s}_{oi}$ is the conditional average value of the signal s_o for fixed values of $s_j + n_j$; y_{oi} is the value of y, in case when from $t = -i\Delta T$ to $t = 0$ the signals given to the output of the register are zero. The analysis shows that at any level of noise the optimum signal is a function of the difference: $\bar{s}_{oi} - y_{oi}$. There are 1 figure, and 2 references: 1 Soviet-bloc and 1 non-Soviet-bloc. The reference to the English-language publication reads as follows: R. Bellman Dynamic programming, Princeton University Press, Princeton, New Jersey. 1957.

SUBMITTED: August 11, 1961

Card 3/3

30442

S/109/61/006/012/017/020
D201/D305

9,9300

AUTHOR: Sindler, Yu.B.

TITLE: Storage of noise and fading in distant tropospheric propagation radio-relay communication system

PERIODICAL: Radiotekhnika i elektronika, v. 6, no. 12, 1961, 2093 - 2094

TEXT: This short communication deals with the asymptotic evaluation of the distribution law of probability of output noise fluctuation when this noise is at a high level and when its fluctuation is due to fading. Fading in tropospheric propagation may be either "slow" or "fast". The following assumptions are made: The system has n sections, the waves are propagated only owing to scattering and at the receiving and there are many primary rays with total power $2\sigma^2$. Phaseshifts and amplitudes are continuously changing, the power $2\sigma^2$ varies slowly. For a given σ the amplitude of the field intensity obeys the Rayleigh distribution

$$W(E/\sigma) = \frac{E}{\sigma^2} \exp\left(-\frac{E^2}{2\sigma^2}\right). \qquad (1)$$

Card 1/3

Storage of noise and fading ...

It is also assumed that σ is random and varies slowly and that its one-dimensional probability distribution is logarithmically normal

$$W(\sigma) = \frac{1}{\sqrt{2\pi}s\sigma} \exp\left[-\frac{(\ln\sigma - \overline{\ln\sigma})^2}{2s^2}\right]. \quad (2)$$

where s - the RMS duration of parameter in Nepers. S is called the slow fading depth. The absolute probability density of the field intensity W(E) may be shown as

$$W(E) = \int_0^\infty W(E/\sigma)W(\sigma)d\sigma = \frac{1}{\sqrt{2\pi}s} \int_0^\infty \frac{E}{\sigma^3} \exp\left[-\frac{E^2}{2\sigma^2} - \frac{(\ln\sigma - \overline{\ln\sigma})^2}{2s^2}\right]d\sigma. \quad (3)$$

For small values of E

$$W(E) \simeq E \exp\left[2(s^2 - \overline{\ln\sigma})\right] \quad (4)$$

may be obtained and since the fluctuating noise power introduced by one section of the system $y = B/E^2$ (5), where B - a constant, the distribution funtion of noise power at one section of the system for large values for noise may be determined by

Card 2/3

SINDLER, Yu.B.

Concerning the application of the theory of dynamic programming to a problem on the registration of the level of weak signals using inertial dynamic systems in the presence of noise. Radiotekh. i elektron. 7 no.1:161-164 Ja '62. (MIRA 15:1)
(Programming (Electronic computers)) (Information theory)

I 04448-67 EWT(m)

ACC NR: AP6018992 SOURCE CODE: UR/0109/66/011/006/0996/1004

AUTHOR: Sindler, Yu. B.

50
B

ORG: none

TITLE: Two-step procedure of detection without signal level quantization

SOURCE: Radiotekhnika i elektronika, v. 11, no. 6, 1966, 996-1004

TOPIC TAGS: signal detection, signal noise separation

ABSTRACT: This two-step detection procedure is considered: (1) The first test yields a likelihood-ratio logarithm z_1 and requires an energy expenditure c_1; the value of z_1 is compared with two thresholds z_t and z_b; if $z_1 < z_b$, the decision is — no signal; if $z_1 > z_t$, the decision is -- the signal is present; if $z_b < z_1 < z_t$, the second test is required; (2) The second test yields z_2 and requires q_2; if $z_1 + z_2 > c$, the signal is present; if $z_1 + z_2 < c$, the signal is absent; c is a new threshold. The quantities q_2 and c are regarded as continuous functions of z_1 defined within $z_b < z_1 < z_t$. Probability of correct detection, probability of false alarm, and energy expenditure in the second test (signal absent) are determined It is claimed that, with high signal energies (large sampling), the above procedure is substantially

Card 1/2 UDC: 621.391.16

L 11230-67 EWT(d)/EWP(c)/EWP(k)/EWP(h)/EWP(l)/EWP(v) IJP( ) GD
ACC NR: AT6022372 SOURCE CODE: UR/0000/66/0 0/000/0013/0019 41

AUTHOR: Sindler, Yu. B.;

ORG: none

TITLE: Certain features of an optimal two-stage procedure for distinguishing between statistical hypotheses

SOURCE: Vsesoyuznaya nauchnaya sessiya, posvyashchennaya Dnyu radio. 22d, 1966. Sektsiya kibernetiki. Doklady. Moscow, 1966, 13-19

TOPIC TAGS: statistic analysis, data sampling, mathematic analysis, quality control

ABSTRACT: The article deals with the features of an optimal procedure of this kind as exemplified by sampling quality control in industry. Suppose that the substandard quality of a lot of products is determined by some parameter θ. The lot is considered up to the standards if $\theta < \theta_{cr}$, where θ_{cr} is the critical value of θ. In radio tube production, e.g. θ may be represented by a quantity inversely proportional to the average (for a given lot of tubes) service life. Suppose further that on testing any one specimen selected from this lot we obtain some random variable ξ_1, and suppose that $p_\theta(x_1) = \text{Prob}\{\xi_1 < x_1 \mid \theta\}$ is the distribution function of

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ξ_1. For a fixed θ the variables ξ_1 and ξ_2 (i = j) are independent. Quality control results in either one of two decisions: the decision d_0 that $\theta < \theta_{cr}$ (the lot is considered acceptable) or the decision d_1 that $\theta > \theta_{cr}$ (the lot is rejected as substandard). The mutual interests of the producer and consumer require the consideration of at least the following three characteristics of quality control procedure: 1. The probability α of the adoption of decision d_1 on condition that θ has an a priori specified value $\theta = \theta_0$, where $\theta_0 < \theta_{cr}$ (error of the first kind). 2. The probability β of the adoption of decision d_0 on condition that $\theta = \theta_1$, where $\theta_1 > \theta_{cr}$ (error of the second kind). 3. The mean number $M_0(n)$ of the specimens used (mean sampling volume) from the acceptable batch when $\theta = \theta_0$. As noted, the procedure consists of two stages. Suppose n_1 is the volume of sampling during stage I and $X^I = \{x_1, \ldots, x_{n1}\}$ is the vector of random realization of the variables $\xi_1, \ldots, \xi_{n1}$ at this stage. In the n_1-variate space E_{n_1} of vector X^I three disjoint regions Γ_1^-, Γ, Γ_1^+ are isolated in such a way that $\Gamma_1^- + \Gamma + \Gamma_1^+ = E_{n_1}$. If $X^I \in \Gamma_1^+$ then the procedure ends with this stage and the decision d_0 is taken when $X^I \in \Gamma_1^-$ or the decision d_1 when $X^I \in \Gamma_1^+$. If $X^I \in \Gamma$, we proceed to stage II. Then the n_2-variate space E_{n_2} of the vector X^{II} is divided into two disjoint regions $\Gamma_2^-(X^I)$ and $\Gamma_2^+(X^I)$, so that $\Gamma_2(X^I) + \Gamma_2^+(X^I) = E_{n_2}$. The

following pertinent statements are mathematically substantiated: Statement 1: The likelihood ratio l_1 is a sufficient statistic of the vector X^I for selecting n_2 in the domain $X^I \in G_1$. Statement 2: The nature of optimal processing of the combined inspection findings for both stages consists in that the overall likelihood ratio $l_1 l_2$ is determined and compared with the constant threshold (Lagrange multiplier) μ. If $l_1 l_2 > \mu$, the decision d_1 is taken; if $l_1 l_2 < \mu$, the decision d_0 is taken. Statement 3: The likelihood ratio l_1 is a sufficient statistic of the vector X for an optimal decision on whether the vector X^I belongs in the domains Γ_1^-, Γ_1 or Γ_1^+. It is shown that a formal solution of this problem, derived on disregarding the condition $n_2 \geq 0$, satisfies this condition. It is proved that condition $n_2 > 0$ is satisfied in the domain Γ_1. Orig. art. has: 22 formulas, 1 figure.

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SINDLER, Z. E.

25(2) PHASE I BOOK EXPLOITATION SOV/2779

Nauchno-tekhnicheskoye obshchestvo mashinostroitel'noy promyshlennosti. Leningradskoye oblastnoye pravleniye

Gidrodinamicheskiye peredachi (Hydrodynamic Transmissions) Moscow, Mashgiz, 1959. 245 p. (Series: Its: Trudy, vyp. 52) 3,000 copies printed.

Ed,: V.P. Gur'yev, Candidate of Technical Sciences, Docent; Tech. Ed.: L.V. Shchetinina; Managing Ed. for Literature on Machine-Building Technology (Leningrad Division, Mashgiz): Ye.P. Naumov, Engineer.

PURPOSE: This book is intended for engineering and technical personnel in the field of hydraulic transmission. It may also be used as a textbook for students of higher technical schools.

COVERAGE: The book is a collection of 20 papers read at the first conference on hydrodynamic transmissions held in Leningrad from 9-11 December, 1957, at which problems of calculation, design, production and operation of hydraulic clutches and hydraulic converters widely used in industry were discussed.

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References follow each article.

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